Kam

INSTRUCTION MANUAL

DMX Star Cluster Ultimate
Multi Star Cluster effect laser with remote control

Four different cluster effects in one unit!
Kaleido, 3D, Firework and Cluster effects
Each effect selectable via the wireless remote control
50mW @ 532nm green laser / 100mW @ 650nm red laser
Multiple red and green laser point effects
Built-in high speed stepping motor / High-efficiency optical system
DMX512, Sound-to-Light / Auto-Run / Master/Slave / Remote Control modes
Built-in selectable programs and patterns
Tough metal chassis and adjustable hanging bracket
Key operated power control

For the latest instruction manual updates and information on the entire Kam range visit:

www.kam.co.uk

DMX Star Cluster Ultimate
The supreme Star Cluster with remote control

Thank you for purchasing this product, we are sure that it will serve you for many years to come. To optimise the performance of this product, please read these operating instructions carefully to familiarise yourself with the basic operations of this unit. This unit has been tested at the factory before being shipped to you.

Unpacking Please unpack your new product carefully, your new product should reach you in perfect condition. Please check that no damage has occurred during transit. If any damage is found, do not operate your unit. Please contact the retailer you purchased it from immediately.

Packing list
1 x laser show system
1 x wireless remote control
1 x AC mains power cable / 1 x DMX signal cable
1 x instruction manual / 1 x Class 3b laser guide
1 x wireless remote control

Safety If there is any damage to the mains cable do not use the device. Always disconnect the unit from the mains supply when carrying out any servicing or cleaning of the unit. To prevent or reduce the risk of electrical shock or fire, do not expose this unit to high temperature, rain or moisture. When cleaning the laser aperture, please use a soft cloth. There are no serviceable parts. Please have all servicing and adjustments made by a qualified service engineer. This appliance is to used by qualified personnel only.

Laser Class 3B product. National regulations must be adhered to at all steps of installation. (In Germany apply DIN 56912 and BGVR LASER. Note: additional regulations may apply). Unintended reflections of the laser beam from reflective or metallic surfaces can be dangerous. Visible and invisible laser light direct beams can damage the human eye, do not look at any laser light directly.
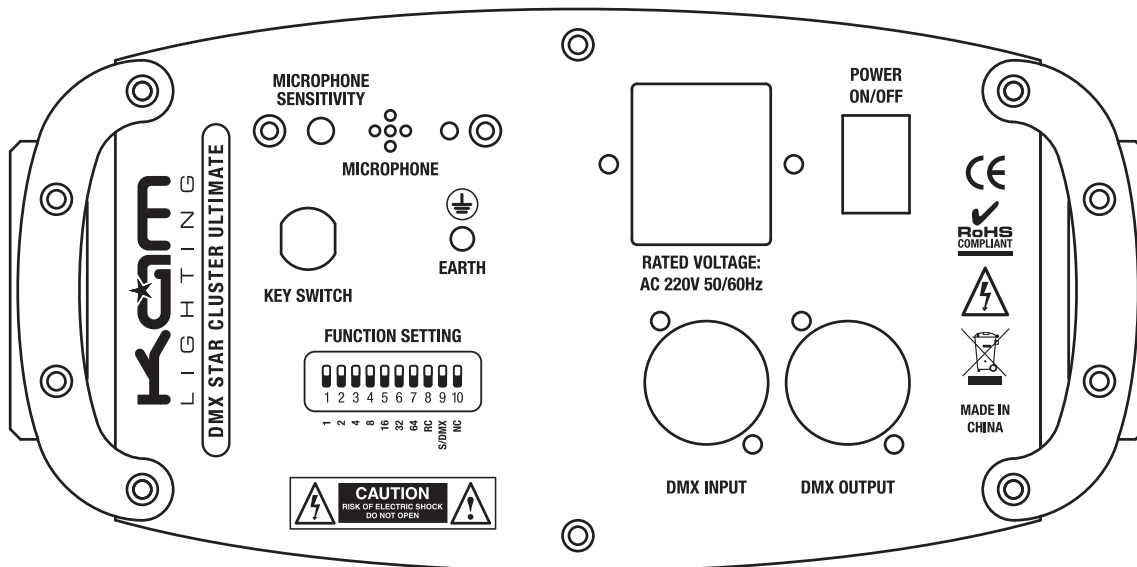
Laser radiation warning This unit uses diode lasers. This is CLASS 3B laser product. Avoid exposure to eyes. Never open the laser diode box, please refer unit to a qualified engineer for servicing or repairs.

Installation Remove anything covering the laser aperture. Plug in the power supply, the unit should now be operative and will self-test for a few seconds depending on which mode the unit is set for.

Dip switch setting
Switches 1-7 are used for the unit address code. Switches 8 and 9 are used for Remote Control and DMX512 modes. Switch 9 is used for setting either Sound-to-Light or Auto-Run modes.

M O D E	A	D	D	R	E	S	S			
	1	2	3	4	5	6	7	8	9	10
Sound control mode	off	off	off	off	off	off	off	off	on	NC
Sound master mode	off	off	off	off	off	off	off	off	on	NC
Auto play mode	on	off	off	off	off	off	off	off	on	NC
Auto master mode	on	off	off	off	off	off	off	off	on	NC
Slave mode	off	off	off	off	off	off	off	on	off	NC
Remote control mode	off	off	off	off	off	off	off	on	on	NC
DMX control mode	1	2	4	8	16	32	64	off	off	NC

Kam DMX Star Cluster Ultimate rear panel controls

Wireless remote control mode

To activate the remote control feature, set dip switches 8 and 9 to the ON position.

Button A: Unit On/Off

Button B: Sound-to-Light mode > Auto mode > Pattern mode

Button C: Pattern select

Sound-to-Light / Auto-Run mode

To activate the Sound-to-Light/Auto-Run feature, set dip switch 9 to the ON position. Then set dip switch 1 to the ON position for the Auto-Run mode and to the OFF position for Sound-to-Light mode. Adjust the microphone sensitivity on the rear of the unit, this enables the unit to react to any strong bass sound.

DMX512 mode

Connect a DMX controller to the XLR DMX input on the rear of the unit. To activate the DMX512 feature, set dip switches 8 & and 9 to the OFF position. Set dip switches 1, 2, 3, 4, 5, 6 and 7 to make the unit's DMX address. It's original address is 001 - DMX512 control mode. The unit has 5 channels which are listed in the table below.

Channels		DMX512 value	Description
1	Control mode	0-69	Laser off
		70-139	Sound-to-Light mode
		140-209	Auto-Run mode
		210-255	Manual mode
2	Rotation	0-99	Anti-clockwise
		100-255	Clockwise
3	Speed	0-255	10 levels from slow to fast
4	Effect	0-255	8 effects
5	Colours	0-69	Red laser
		70-139	Green laser
		140-255	Red and green laser

Master/Slave operation

The Master/Slave operation enables multiple devices to be synchronised and controlled by one Master device.
On the rear panel of the unit you will find XLR input and XLR output sockets which can be used for linking devices.

To operate the star cluster ultimate in master slave mode using the remote control:
Set the master unit as follows: set dipswitches 8 and 9 to the on position with all other switches off
Set all slave units with dipswitch 8 on and all other dipswitches off.

To operate the star cluster ultimate with no remote control in auto mode:
Set the master unit as follows: set dipswitches 1 and 9 to the on position with all other switches off.
Set all slave units with dipswitch 8 on and all other dipswitches off.

To operate the star cluster ultimate with no remote control in sound mode:
Set the master unit as follows: set dipswitch 9 to the on position with all other switches off.
Set all slave units with dipswitch 8 on and all other dipswitches off.

Link all master slave units together using a dmx cable. Please note only one unit should be set to master, all other units in the chain must be set to slave.

Technical specifications

Green laser: **50mW @ 532nm**

Red laser: **100mW @ 650nm**

Modes: **DMX512 / Sound-to-Light / Auto-Run / Master/Slave / Remote Control**

DMX channels: **5**

DMX input: **XLR**

Mode selection: **dip switch**

Mains input power: **AC 220-240V~50/60Hz**

Power consumption: **30V max**

Operating temperature: **20ºC - 35ºC**

Storage temperature: **20ºC - 80ºC**

Due to continuous product development, specifications and appearance are subject to change.
If this product is ever no longer functional please it take to a recycling plant for environmentally friendly disposal.

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